

IN THE CLAIMS

1-20 (Canceled).

21. (Withdrawn) A substrate processing apparatus, comprising:  
a processing section for performing coating and developing processing for a substrate;  
an interface section, for transferring the substrate at least via a route between the processing section and an aligner for subjecting the substrate to exposure processing, divided into a first area for transferring the substrate delivered from the processing section to the aligner and a second area for transferring the substrate delivered from the aligner to the processing section; and  
a control section for controlling atmospheres in the first and second areas.

22. (Withdrawn) The apparatus as set forth in claim 21, wherein:  
the first area comprises a chamber, disposed in the interface section, for temporarily holding the substrate delivered from the processing section and to be transferred to the aligner; and  
the control section comprises an atmosphere controller for controlling an atmosphere in the chamber.

23. (Withdrawn) The apparatus as set forth in claim 22,  
wherein the atmosphere controller reduces a pressure inside the chamber.

24. (Withdrawn) The apparatus as set forth in claim 22,  
wherein the atmosphere controller supplied an inert gas into the chamber.

25. (Withdrawn) The apparatus as set forth in claim 22,  
wherein the atmosphere controller supplies dry air into the chamber.

26. (Withdrawn) The apparatus as set forth in claim 22,  
wherein the chamber comprises:  
a purge room for temporarily holding and purging the substrate introduced into the  
chamber;  
a buffer room for holding the substrate; and  
a transfer device for transferring the substrate between the purge room and the buffer  
room.

27. (Withdrawn) The apparatus as set forth in claim 26,  
wherein the buffer room has a transit opening for directly carrying out the substrate to  
the aligner.

28. (Withdrawn) A substrate processing apparatus, comprising:  
a coating processing unit for at least forming a coating film on a substrate;  
a developing processing unit for developing the substrate;  
a thermal processing unit for thermally processing the substrate;  
a transfer device for carrying the substrate into/out of the coating processing unit, the  
developing processing unit, and the thermal processing unit; and  
a blower for sending an inert gas to the substrate which is being transferred by the  
transfer device.

29. (Withdrawn) The apparatus as set forth in claim 28,

wherein the transfer device has tweezers for holding the substrate, and

wherein the blower has a top cover having a blast port for sending the inert gas from above the tweezers.

30. (Withdrawn) The apparatus as set forth in claim 29,

wherein a plurality of the blast ports are provided to correspond to a shape of the tweezers.

31. (Withdrawn) The apparatus as set forth in claim 29,

wherein a plurality of the blast ports are provided to correspond to a shape of the substrate.

32. (Withdrawn) The apparatus as set forth in claim 28,

wherein the blower has a temperature control mechanism for controlling a temperature of the inert gas.

33. (Withdrawn) The apparatus as set forth in claim 28,

wherein the blower has a humidity control mechanism for controlling a humidity of the inert gas.

34. (Withdrawn) The apparatus a set forth in claim 28,

wherein the blower sends the inert gas when the transfer device transfers the substrate from the coating processing unit to the thermal processing unit.

35. (Currently Amended) A substrate processing apparatus, comprising:

a reaction inhibiting section for ~~performing processing of~~ inhibiting progress of a resolution reaction of a resist to an extent to which the progress of the resolution reaction of the resist is inhibited for a substrate coated with the resist and exposed according to an area of the substrate;

a heating section for heating the substrate processed in the reaction inhibiting section to progress the resolution reaction of the resist;

a cooling section for cooling the substrate heated in the heating section to inhibit the progress of the resolution reaction of the resist; and

a developing processing section for performing coating processing of a developing solution for the substrate cooled in the cooling section.

36. (Currently Amended) A substrate processing apparatus, comprising:

a first station including a mounting section on which a substrate cassette housing a plurality of substrates is mounted and a delivery means for receiving and sending the substrate from/to the substrate cassette mounted on the mounting section; and

a second station, connected to the first station, for processing the substrate transferred by the delivery means; and

an interface section for delivering the substrate between ~~the~~ a processing station and an aligner for subjecting the substrate to exposure processing,

wherein the second station includes:

a heating section for heating the substrate to progress the resolution reaction of the resist,

a cooling section for cooling the substrate heated in the heating section to inhibit the progress of the resolution reaction of the resist, and

a developing processing section for performing coating processing of a developing solution for the substrate; and

wherein the interface section includes a reaction inhibiting section placed a position nearer the aligner side for inhibiting progress of a resolution reaction of a resist on a substrate coated with the resist and exposed.

37. (Canceled)

38. (Original) The apparatus as set forth in claim 35,

wherein the reaction inhibiting section inhibits the progress of the resolution reaction of the resist by cooling the substrate coated with the resist and exposed so as not to cause dew formation.

39. (Original) The apparatus as set forth in claim 35,

wherein the reaction inhibiting section inhibits the progress of the resolution reaction of the resist by making an amount of moisture adhering to the substrate coated with the resist and exposed smaller than an amount of moisture adhering to the substrate when the substrate is transferred to the reaction inhibiting section.

40. (Original) The apparatus as set forth in claim 39,

wherein the reaction inhibiting section makes the amount of the moisture adhering to the substrate smaller than the amount of the moisture adhering to the substrate when the substrate is transferred to the reaction inhibiting section by supplying a gas having a humidity

lower than a humidity of air in an atmosphere in which the reaction inhibiting section is placed.

41. (Original) The apparatus as set forth in claim 35,  
wherein the resist is a chemically amplified resist, the resolution reaction of which is progressed by an acid produced by exposure.

42. (Canceled).

43. (Withdrawn) A substrate processing method, comprising the steps of:  
performing processing of inhibiting progress of a resolution reaction of a resist for a substrate coated with a resist and exposed;  
heating the substrate subjected to the processing of inhibiting the progress of the resolution reaction of the resist to progress the resolution reaction of the resist;  
cooling the heated substrate to inhibit the progress of the resolution reaction of the resist; and  
performing coating processing of a developing solution for the cooled substrate.

44. (Withdrawn) The method as set forth in claim 43,  
wherein in the reaction inhibiting step, by cooling the substrate coated with the resist and exposed so as not to cause dew formation, the progress of the resolution reaction of the resist is inhibited.

45. (Withdrawn) The method as set forth in claim 43,

wherein in the reaction inhibiting step, the progress of the resolution reaction of the resist is inhibited by making an amount of moisture adhering to the substrate coated with the resist and exposed smaller than an amount of moisture adhering to the substrate when the substrate is transferred in the reaction inhibiting step.

46. (Withdrawn) The method as set forth in claim 43,

wherein in the reaction inhibiting step, an amount of moisture adhering to the substrate is made smaller than an amount of moisture adhering to the substrate when the substrate is transferred in the reaction inhibiting step by supplying a gas having a humidity lower than a humidity of air in an atmosphere in the reaction inhibiting step.

47. (Withdrawn) The method as set forth in claim 43,

wherein the resist is a chemically amplified resist, the resolution reaction of which is progressed by an acid produced by exposure.

48. (Withdrawn) The method as set forth in claim 43, wherein:

heating the substrate comprises heating the substrate in a heating section to progress the resolution reaction of the resist; and

performing processing of inhibiting progress comprises transferring the substrate coated with the resist and exposed to the heating section while inhibiting a resolution reaction of the resist.

49. (Withdrawn) The method as set forth in claim 48,

wherein in the transferring step, the exposed substrate is transferred to the heating section while the progress of the resolution reaction of the resist is inhibited by cooling the exposed substrate so as not to cause dew formation.

50. (Withdrawn) The method as set forth in claim 48,

wherein in the transferring step, the substrate is transferred to the heating section while the progress of the resolution reaction of the resist is inhibited by making an amount of moisture adhering to the substrate when the substrate is transferred to the heating section smaller than an amount of moisture adhering to the substrate after exposure.

51. (Withdrawn) The method as set forth in claim 50,

wherein in the transferring step, the amount of the moisture adhering to the substrate when the substrate is transferred to the heating section is made smaller than the amount of the moisture adhering to the substrate after exposure by transferring the substrate to the heating section while supplying a gas having a lower humidity than air to the exposure substrate.

52. (Withdrawn) The method as set forth in claim 48,

wherein the resist is a chemically amplified resist, the resolution reaction of which is progressed by an acid produced by exposure.

53-55 (Canceled).

56. (Currently Amended) A substrate processing apparatus, comprising:



a cassette station including a mounting section on which a substrate cassette housing a plurality of substrates is mounted and a delivering means for receiving and sending the substrate from/to the substrate cassette mounted on the mounting section;

a processing station, connected to the cassette station, for processing the substrate transferred by the delivery means having a heating section for heating the exposed substrate to progress a resolution reaction of a resist, a cooling section for cooling the substrate heated in the heating section to inhibit the progress of the resolution reaction of the resist; and a developing processing station for performing coating processing of a developing solution of the substrate; and

an interface station having a gas supply section for supplying a gas having a humidity lower than air and a temperature regulating section regulating either of the temperature or the humidity to make an amount of moisture adhering to the substrate when the substrate is transferred to the heating section smaller than an amount of moisture adhering to the substrate after exposure so that the progress of the resolution reaction of the resist is inhibited and dew formation on the substrate is prevented, for delivering the substrate between the processing station and an aligner for subjecting the substrate to exposure processing;

~~wherein the processing station comprises;~~

~~a heating section for heating the exposed substrate to progress a resolution reaction of a resist;~~

~~a cooling section for cooling the substrate heated in the heating section to inhibit the progress of the resolution reaction of the resist; and~~

~~a developing processing section for performing coating processing of a developing solution for the substrate, and~~

~~wherein the interface station is cooled so as not to cause dew formation on the substrate to inhibit the resolution reaction of the resist.~~

57-60 (Canceled).

61. (Currently Amended) The apparatus as set forth in claim 56 ~~53~~,  
wherein the resist is a chemically amplified resist, the resolution reaction of which is  
progressed by an acid produced by exposure.

62. (Withdrawn) The apparatus of claim 21, wherein the control section comprises:  
a first gas supply device for supplying an inert gas to the first area;  
a first exhaust device for exhausting an atmosphere in the first area;  
a second gas supply device for supplying the inert gas to the second area; and  
a second exhaust device for exhausting an atmosphere in the second area.